What is claimed is:

1. A method for operating a torque-converter lockup clutch (20) for a hydrodynamic torque converter (1), where the slip of the torque converter (1) is adjusted using a setpoint value (sw), while the torque-converter lockup clutch (20) is being closed, the setpoint value (sw) being continuously selected inside a closing interval, as a function of time, and taking into account the input torque (E) currently applied to the torque converter (1).

2. The method as recited in Claim 1, where, for the time-dependence of the setpoint value (sw), a preselected time characteristic is taken into account, which converts the slip existing at the beginning of the closing interval as an initial value, into a target value, within the closing interval.

3. The method as recited in Claim 2, where a linear transition from the initial value to the target value is provided as a time characteristic inside the closing interval.

4. The method as recited in Claim 2 or 3, where the input torque (E) applied to the torque converter (1) is monitored inside the closing interval; in response to the input torque (E) changing by more than a specifiable tolerance deviation, the slip of the torque converter (1) being ascertained and taken as a basis for a new initial value, which would appear at this input torque (E) in the case of a completely opened torque-converter lockup clutch (20).

5. The method as recited in Claim 4, where the value resulting from the preselected time characteristic for

18

the current time inside the closing interval is selected as the setpoint value (sw) for the slip, the time characteristic converting the initial value ascertained using the currently applied input torque (E) into the target value.

6.   The method as recited in Claim 4 or 5, where the slip to be used as a new initial value, as a basis for the applied input torque (E) is determined using a stored characteristics map.

7.   The method as recited in Claim 4 or 5, where the slip to be used as a new initial value, as a basis for the applied input torque (E) is calculated from the applied input torque (E), taking the performance figure of the torque converter (1) into consideration.

8.   The method as recited in one of Claims 1 through 7, where, in order to adjust the slip, a controlled parameter is provided for setting a clamping pressure for the torque converter (1).

9.   The method as recited in one of Claims 1 through 8, where the time characteristic of the slip is monitored for a decline, in order to detect the start of power transmission in the torque-converter lockup clutch (20).

10.   The method as recited in Claim 9, where, after a decrease in the slip is detected, a clamping pressure for the torque converter (1) is set as a function of a coupling torque to be transmitted, and as a function of the setpoint value (sw) for the slip of the torque-converter lockup clutch (20).

11.   A control device (24) for a torque-converter lockup

clutch (20) for a hydrodynamic torque converter (1), where a sensor (32) for detecting the input torque (E) applied to the torque converter (1) is connected to a control unit (26), which selects a setpoint value (sw) for the slip of the torque converter (1) as a function of time, and taking into consideration the input torque (E) currently being applied to the torque converter (1).

12. The control device (24) as recited in Claim 11, whose control unit (26) is connected on the output side to means for setting a clamping pressure for the torque converter (1).

13. The control device (24) as recited in Claim 11 or 12, whose control unit (26) is connected to a data storage unit (36), in which a time characteristic for the setpoint value (sw) of the slip is stored, a slip existing at the beginning of a closing interval as an initial value being converted into a target value within the closing interval, in accordance with the time characteristic for the setpoint value of the slip.

14. The control device (24) as recited in Claim 13, in whose data storage unit (36) a data record is stored, from which a slip value can be derived for each input torque (E), the slip value being intended to be used as an initial value, as a basis for determining the setpoint value (sw) for the slip as a function of time.

15. The control device (24) as recited in Claim 13, in whose data storage unit (36) a characteristics map is stored, which, inside specifiable interval boundaries, assigns each performance figure of the torque converter (1) a corresponding slip value.

20